

**PROJECT UTILITY COORDINATION FORM**

THIS PAGE INTENTIONALLY LEFT BLANK



Project Utilities Coordination (PUC) Form

CONTACTS AND GENERAL UTILITY INFORMATION

8/21/2014
Revision
Date:

City/Town: Chelsea	Project File #: 604428	PUC Completed by: J. Goyne/A. Christakis	Utility Pole Set: Nstar Electric
Route/Street:  Silverline Busway & Washington Ave. Bridge	Resident Engineer:  <i>To be determined.</i>	Mass DOT PM:  Joseph Pavao Jr.	Scheduled Ad Date:  7/19/2014
			Total Poles Relocated: 6 utility poles and 8 high tension power line poles

8/22/2014  
PRINTED

Consultant:			Contact:		Office #		Cell #		Email						
AECOM			Francis Astone		(978) 905-2173				Francis.Astone@aecom.com						
Utility Company	Contact	Office #	Cell #	Email	Scope, Budget, Duration Submitted		Reimbursement			Potential for District Initiated Early Relocation *		Utilities On Bridge/Structure		Utilities Underground (UG) /Aerial (OH)	
					Yes	No	Agreement	Non-Reimb'le	Notes	YES	NO	YES	NO	UG	OH
Nstar Electric (Distribution)	Aruna Sikharam	(617) 369-5533		aruna.sikharam@nu.com	X		X		Nstar distribution lines are currently aerial over the bridge. The new configuration will include new manholes and a duct bank through the bridge.		X		X		X
Verizon	Paul Mirley	(978) 837-6199		paul.d.mirley@verizon.com	X		X		Verizon shall design and install the temporary support to hold their existing infrastructure though the bridge in place.		X			X	
Comcast	Earle Lawson	(617) 279-1925		earle.lawson@cable.comcast.com	X		X		Comcast lines are currently aerial over the bridge. The new configuration will include new manholes and two conduits through the bridge.		X		X		X
National Grid Gas	Tommy Fang	(617) 438-0718		tommy.fang@nationalgrid.com	X		X		Only if the relocation work is deemed necessary. Contractor to avoid unnecessary relocation.		X		X		X
Chelsea Water	Andrew B. DeSantis	(617) 466-4206		adesantis@chelseama.gov		X			Water work will be included in the MassDOT contract.		X		X		X
Chelsea Fire	Allan Alpert	(617) 466-4660		aalpert@chelseama.gov	X		X		Verizon will provide duct for Chelsea Fire Alarm		X		X		X
Crown Castle	Joseph Guido	(917) 563-3684	(914) 420-2123	joseph.guido@crowncastle.com	X		X		Crown Castle lines are currently aerial over the bridge. Verizon may provide duct for Crown Castle. Otherwise, a dedicated duct for Crown castle is required.		X		X		X
MBTA	John McCormack			jmcormack@mbta.com	X		X				X		X		
Nstar Electric (Transmission)	David Amann			David.Amann@nu.com					Transmission line relocation may be eligible for up to 100% reimbursement based upon meeting performance criteria.		X		X		X
BCE Nexia	Gillian Birch	(905) 614-4794		gillian.birch@bell.ca	X			X	Concrete protection of duct bank due to loss of cover as required by MassDOT. Hand-hole replacement, markers and supervision as required by BCE Nexia.		X		X		X

Utility Relocation Notes for MassDOT Contractor

Unless otherwise noted by Contract, the MassDOT Contractor is to provide the District Construction Office <b>with 7 Calendar Days advance</b> notification in order to validate the current progress and provide the required 30 Days advance notice-to-proceed for the first Utility - and each subsequent Utility. These advance notifications are to be identified in the Contractor's Schedules (Pre-Con preparation, Baseline, Subnets, and Updated/Monthly Schedules) as specified in Subsection 8.02 (for DBB Contracts) and/or Section 9 (of DB Contracts). Note: The durations included below do not include these lead-times. See Additional 'Important Basis notes for Contractor' - on last PUC Form page.
Additional notes: Please note that the Utilities on Bridge/Structure refers to existing facilities and not proposed final locations. Existing aerial utilities over the Washington Avenue bridge shall be relocated underground and through the new bridge. The BCE Nexxia network is located within the limits of the proposed busway. Note that no excavation/ground works shall be performed prior to confirming network location by test pit and that no excavation/ground works shall be performed within 2 meters (measured vertically and horizontally) of confirmed locates without a BCE Nexxia approved inspector present. See Conditions for Working Around the Network of BCE Nexxia for further details.
<b>Suggested Sequence of Relocation ( Based on Consultant proposed construction staging)</b> <i>The sequence as detailed on the following pages is based on the consultants proposed staging plan. This information was compiled through meetings that included all of the utilities listed below along with the designer and the City of Chelsea. The information provided is the best available information prior to project advertisement.</i>



PUC FORM - CONTINUED

Is 'enabling' (prep) work, by the Contractor, necessary prior to the start of the first series of utility relocations:		Yes	No
		X	

Has any of the Utility work been identified to work concurrently		Yes	No
		X	



8/22/2014  
PRINTED

RESPONSIBLE PARTY	DESCRIPTION - Utility Relocation Phases, Tasks and Activities	Estimated Duration (Work Days) by Utilities (Lead time not included)	Concurrent / Exclusive Utility Work				Access Restraint (AR) & Limitations of Operations Notes
			Exclusive Utility on site	Concurrent Utilities	Contractor Off-Site	Contractor Concurrent	
Bridge Stage 1	The Contractor will need to prepare the site and perform the installation of the manholes and conduit. In order to install the conduit for the utility companies over the bridge, the Contractor will need to demolish a portion of the existing bridge, build the piers and abutments and place the new beams. National Grid Gas should conduct their work (if required) before the contractor begins major bridge work as their facilities are to be removed outside of the proposed structure limits.		Utility working with no other Utilities in vicinity	Utility working with other Utilities on site	No Contractor physical constructions on-site (while Utility is working)	Contractor and Utility are working on-site - but NOT in the same vicinity	Potential Access Restraint (Yes/No)
							Reason/Note (optional)
Task: 1	UTILITY OPERATIONS - Underground						
	National Grid Gas						
	U	Excavate test hole to determine location of existing underground facilities. Excavate gas main squeeze off pit. Install gas stopper equipment. Squeeze off gas main. Cut & cap gas main. Transfer existing gas service, if necessary. Backfill and restore trench.	3			X	
		Sub-Total	3				
		Nstar Electric					
	U	Install 4 new poles poles/wire, #1, 2, 3 and 2/10 as indicated	4			X	
	C	Install 2 manholes (6x10x8)	10				
	C	Install 6-5" FRE from MH #1 to MH #2 (+/- 250')	10			X	MassDOT contractor performing work
	C	Install 2-5" PVC EB from P2/10 Highland to MH #2 (+/- 25')	2			X	MassDOT contractor performing work
	C	Install 2-5" PVC EB from new P3 Heard to MH #1 (+/- 150')	6			X	MassDOT contractor performing work
Task: 2	C	Install 2-5" PVC EB from new P2 Highland to MH #1 (+/- 10')	2			X	MassDOT contractor performing work
		Sub-Total	34				
	Verizon						
	U	"White Mtn Cable" to place new split Manhole 50 and lateral ducts to MH 50A + 49	10			X	
	U	Verizon to place new cables from New MH 50 to MH 49 + 50A	2			X	
	U	Verizon to splice and cut-over working facilities in these cables	24			X	
	U	Verizon to remove old cables	2			X	
	U	"White Mtn Cable" to remove old manhole and ducts	2			X	
	U	American U-Tel to expose the existing ducts in the EAST sidewalk and excavate back to the beam support pos.	10			X	
	U	American U-Tel to transport and install the 135ft beam and temp support the existing ducts and cables	5			X	
Task: 3	U	American U-Tel to position the cables and ducts within the new utility bay and install split fiberglass duct and hanging supports	10			X	
		Sub-Total	65				
	Comcast						
	C	Placement of new Comcast manhole at the intersection of Heard & Washington Streets	2			X	
	C	Placement of conduits from P#1 Heard St. to new manhole	3			X	
	C	Placement of conduits from P#10 Washington St. to new manhole	3			X	
	C	Placement of conduits from P#12 Washington St. to manhole	3			X	
	U	Pulling of new fiber optic cables from Heard St. to Washington St.	10			X	
	U	Pulling of new coax cables from Heard St. to Washington St.	3			X	
		Sub-Total	24				

RESPONSIBLE PARTY		DESCRIPTION - Utility Relocation Phases, Tasks and Activities	Estimated Duration (Work Days) by Utilities (Lead time not included)	Concurrent / Exclusive Utility Work				Access Restraint (AR) & Limitations of Operations Notes	
				Exclusive Utility on site	Concurrent Utilities	Contractor Off-Site	Contractor Concurrent		
Bridge Stage 2	C = Contractor U = Utility Co.	Enabling' work by the Contractor - Possible minor site work for overhead relocations. For Verizon's underground work, the existing west portion of the bridge deck will need to be removed so American U-Tel can place the support beam for Verizon's existing duct. Comply with BCE Nexxia vibration limits and conditions for working around the network (underground in the busway below) during the demolition of the existing bridge pier.		Utility working with no other Utilities in vicinity	Utility working with other Utilities on site	No Contractor physical construction on-site (while Utility is working)	Contractor and Utility are working on-site - but NOT in the same vicinity	Potential Access Restraint (Yes/No)	Reason/Note (optional)
Task: 1		UTILITY OPERATIONS - Underground							
		Verizon							
		U American U-Tel to expose the existing ducts in the WEST sidewalk and excavate back to the beam support positions	10		x		x		
		U American U-Tel to excavate back to install 135ft beam and temp support the existing ducts and cables	5	x			x		
		U American U-Tel to position the cables and ducts within the new utility bay and install split fiberglass duct and hanging supports	10		x		x		
Task: 2		U American U-Tel to return 135ft beam to Verizon storage yard	1	x			x		
		Sub-Total	26						
		UTILITY OPERATIONS - Aerial							
		Nstar Electric							
		U Install Cable	5	x			x		
		U Splicing	5	x			x		
		U Install overhead equipment	6	x			x		
		U Build Riser	8	x			x		
		U Frame Poles	6	x			x		
		U Install Wire	12	x			x		
		U Install transformers	1	x			x		
		U Remove poles P11/1, P2/11 & P31/1	3	x			x		
		U Install new poles #21 & #22 on Spruce Street	4		x		x		
		U Install guy anchors	1		x		x		
		U Install Wire and transformers	3		x		x		
Task: 2		U Remove poles P21, P22	3		x		x		
		Sub-Total	57						
		Crown Castle							
		Provide a conduit pathway from pole #2, across the bridge to the new 2/10 pole in the event that Crown Castle cannot be accommodated in the Verizon duct bank, as required.							
		U Wreck out existing aerial fiber from utility poles	1						
Task: 2		U Re-install aerial and underground fiber cable into conduit. Underground conduit and pole riser sweeps to be provided by others.	3						
		U Re-splice fiber cable at both ends. Test and reconnect node.	1						
		Sub-Total	5						
		Chelsea Fire Department							
		U Run cable, install fiber	1						
Task: 2		U Connections & Testing	1						
		U Demo Existing cables	1						
		Sub-Total	3						
		Comcast							
		U Schedule of splicing of Fiber Cables (90 days notice)	5	x					
Busway Stage 1		U Schedule of splicing of Coax Cables	5	x					
		U Schedule of wreck out of aerial coax and fiber from poles	3		x				
		Sub-Total	13						
		Enabling' work by the Contractor - Site work for overhead relocations. BCE Nexxia underground network to stay in place whenever possible. The contractor shall, at the direction of the Engineer and under the supervision of BCE Nexxia, encase the network in concrete wherever the minimum cover limits are not satisfied. The contractor shall comply with the BCE Nexxia vibration limits and conditions for working around the network while constructing the new busway. This work (test pits and concrete encasement) should happen as early as possible.							



RESPONSIBLE PARTY	DESCRIPTION - Utility Relocation Phases, Tasks and Activities		Estimated Duration (Work Days) by Utilities (Lead time not included)	Concurrent / Exclusive Utility Work				Access Restraint (AR) & Limitations of Operations Notes	
				Exclusive Utility on site	Concurrent Utilities	Contractor Off-Site	Contractor Concurrent		
C = Contractor U = Utility Co.	UTILITY OPERATIONS - Aerial			Utility working with no other Utilities in vicinity	Utility working with other Utilities on site	No Contractor physical construction on-site while Utility is working)	Contractor and Utility are working on-site - but NOT in the same vicinity	Potential Access Restraint (Yes/No)	Reason/Note (optional)
Task: 1		<b><i>Nstar Electric Transmission</i></b>							
	U	Nstar shall relocate eight (8) transmission poles and power lines that are in conflict with the proposed busway. Note the seasonal constraints for transferring the transmission power lines to the new poles.							
		<b>Sub-Total</b>	<b>0</b>						
Task: 2		<b><i>MBTA</i></b>							
	U	Remove existing RR signal under the Route 1 viaduct.							
	U	Signal personnel to install conduit under tracks at the Downtown Chelsea Station							
	U	Relocation of overhead power & signal cables at Spruce Street							
	U	Relocate Grease Box located between Washington and Broadway at Station 48+80							
	U	Relocate Storage Containers located along outbound platform at the commuter rail station							
	U	Track/paving Crew to install temp. asphalt platform & crossings at existing CR Station							
		<b>Sub-Total</b>	<b>0</b>						
Task: 3		<b><i>Nstar Electric Distribution</i></b>							
	U	Install new poles #21 & #22 on Spruce Street	4		x		x		
	U	Install guy anchors	1		x		x		
	U	Install Wire and transformers	3		x		x		
	U	Remove poles P21, P22	3		x		x		
		<b>Sub-Total</b>	<b>11</b>						
		UTILITY OPERATIONS - Underground							
Task: 1	C	<b><i>BCE Nexxia</i></b>							
		Encase the BCE Nexxia network with concrete as directed by the Engineer and under the supervision of an authorized BCE Nexxia representative.							
		<b>Sub-Total</b>	<b>0</b>						

IMPORTANT BASIS NOTES - FOR CONTRACTOR

1	Unless otherwise specified in the MassDOT Construction Contract, or unless specifically noted within this PUC Form, these durations (herein) are based upon the Contractor providing <i>unimpeded access</i> to the Utility company to perform Utility relocations (see Note 5 - Access).
2	"Concurrent Utilities" operations noted herein, are to signify those Utility Company operations that can be worked concurrently (e.g. Utility A and Utility B work on-site together) - MassDOT and the Contractor are to prepare NTPs to Utilities accordingly.
3	"Potential Access Restraints" noted within this PUC Form are for planning purposes. See MassDOT Contract for Contractual Access Restraints (refer to Subsections 8.02, 8.03, and/or 8.06 for Design Bid Build Contracts and Volume II Section 9 for Design Build Contracts).
4	Utility non-work periods - For planning purposes, the durations above contain some non work days (contingency) for New England conditions (precipitation, high temperatures, low temperatures, snow, ice). Gas line work however, typically has a seasonal restriction and can NOT be installed from 15-November to 15-March. Municipally Owned Electric and Gas Utilities are also restricted from proceeding from 15-November to 15-March. All of the Telco's have "Embargos" in place during high demand periods (during Christmas/New Years, SuperBowl, Investing / RRSP season). Any work that could be service impacting cannot be performed and the network cannot be exposed during these times. Nstar Electric can only transfer the transmission power lines to the new poles during the spring and fall low demand windows. The Contractor shall (and the CTD plan) reflect this calendar restriction within the schedule (unless otherwise note).
5	Access - Unless otherwise noted in the Contract, and in addition to the 'enabling' notes above, the Contractor must provide safe and unimpeded access (for trucks, lifts, cranes, etc.) to the Utilities, to allow for the proposed relocation(s) - including but not limited to snow removal, clearing and grubbing, guard rail removal, barrier removal, tree removal, and grading.

RESPONSIBLE PARTY	DESCRIPTION - Utility Relocation Phases, Tasks and Activities	Estimated Duration (Work Days) by Utilities (Lead time not included)		Concurrent / Exclusive Utility Work Contractor note: In planning and executing the work, the information in these 4 columns is intended to supplement any related Access Restraints that are described in the Special Provisions.				Access Restraint (AR) & Limitations of Operations Notes	
				Exclusive Utility on site	Concurrent Utilities	Contractor Off-Site	Contractor Concurrent		
C = Contractor	U = Utility Co.			Utility working with no other Utilities in vicinity	Utility working with other Utilities on site	No Contractor physical construction on-site (while Utility is working)	Contractor and Utility are working on-site - but NOT in the same vicinity	Potential Access Restraint (Yes/No)	Reason/Note (optional)
		6	For all MassDOT construction contracts issued after January 2014, the new Utility Coordination/documentation specification is required. This is Section 8.14 in Design-Bid-Build Contracts (see Design-Build index reference for applicable section #).						
		7	Prior to starting any and all enabling work for Utilities, the Contractor is to plan in advance with submittals and approved durations.						
		8	* Potential District Initiated Early Utility Relocation - if noted herein, the District reserves the right to initiate early utility relocation in advance of the Contract NTP. In submitting a bid price and in the development/basis of the Baseline Schedule, the Contractor shall not plan the Work with the potential benefit of any form of 'early utility relocation.' As a requirement of the Baseline submission, unless otherwise noted in this Specification, the earliest that the first Utility company is to receive the 30 days advance notification to mobilize to the site, will be 7 calendar days after the pre-construction meeting and never sooner than 7 days after the Contract NTP.						
		9	Please note that most of the utility work is related to the Washington Ave. bridge location. While this form states that the Contractor can work on-site during utility work, typically this means that the Contractor can perform work along the proposed busway but not on Washington Ave. This distinction will need to be discussed between the Contractor, Utility Companies and MassDOT construction personnel.						
		10	Comcast requires a 90 day notification before they will splice their fiber cables.						
		11	Comcast work appears to include the relocation of AT&T cables as well.						
		12	Overhead relocations for each company cannot be completed until the new underground infrastructure is in place. This includes manholes, conduit and necessary fiber and cable. Existing overhead facilities will not be removed until the proposed underground facilities are in place and functional. This is critical for the demolition and construction of the Western portion of the Washington Ave. bridge.						
		13	Nstar Electric's work on Spruce Street is not dependent or related to their work on Washington Ave. and can be completed once the site on Spruce Street has been cleared and the proper easements (if necessary) are in place.						